

IN THE CLAIMS

The following claim set replaces all prior versions, and listings, of claims in the application:

Claims 1-10 (Canceled).

11. (Original) An internal combustion engine control apparatus comprising:
an ignition operating circuit; and
an injection operating circuit operating a fuel injection valve, wherein said
ignition operating circuit and said injection operating circuit are integrated with together, and
said ignition operating circuit and said injection operating circuit commonly
share a function device used for both circuits.

12. (Original) An internal combustion engine control apparatus comprising:
an ignition operating circuit;
an injection operating circuit operating a fuel injection valve;
a control computer controlling said ignition operating

circuit and said injection operating circuit; and

a signal determining circuit provided between said control computer and said both operating circuits, wherein

said signal determining circuit carries out cylinder determination and ignition/injection determination based on combinations of a plurality of signals output from said control computer, and

said signal determining circuit outputs ignition signal and injection signal for each cylinder into said both operating circuits.

13. (Original) An internal combustion engine control apparatus according to claim 12, wherein

said control computer outputs a cylinder determination signal, an ignition determination signal, and an injection determination signal into said signal determining circuit,

said control computer changes pulse durations of the ignition determination signal and the injection determination signal in accordance with ignition period and injection period, respectively,

said signal determining circuit carries out cylinder determination and ignition/injection determination based on combinations of the cylinder determination signal, the ignition determination signal and the injection determination signal,

said signal determining circuit determines a pulse duration of the ignition signal based on the pulse duration of the ignition determination signal, and

said signal determining circuit determines a pulse duration of the injection signal based on the pulse duration of the injection determination signal.

14. (Original) An internal combustion engine control apparatus for an injection inside cylinder type engine in which a fuel injection valve directly injects fuel into a cylinder, including a combustion detecting circuit detecting a combustion state inside said cylinder through an operating means for said fuel injection valve.

15. (Original) An internal combustion engine control apparatus comprising:
an ignition operating circuit;

an injection operating circuit operating a fuel injection valve; and
an energy recovery circuit getting back remaining energy in one of said ignition operating circuit and said injection operating circuit, and supplying the remaining energy into the other operating circuit.